



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Veterinary  
Services

National  
Animal Health  
Monitoring  
System

June 2006



# Cattle and Calves Death Loss in the United States, 2000



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#N446.0606

Cover photo courtesy of Agricultural Research Service

## Acknowledgments

This report was a cooperative effort between two U.S. Department of Agriculture (USDA) Agencies: the National Agricultural Statistics Service (NASS) and the Animal and Plant Health Inspection Service (APHIS).

Thanks to the NASS enumerators who contacted cattle producers and collected the data. Their hard work and dedication were invaluable. Thanks also to the personnel at the USDA–APHIS–Veterinary Services' Centers for Epidemiology and Animal Health for their efforts in generating and distributing this report.

All participants are to be commended, particularly the producers whose voluntary efforts made this report possible.

A handwritten signature in black ink, reading "José R. Díez". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

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Director  
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**Suggested bibliographic citation for this report:**

USDA. 2006. Cattle and Calves Death Loss in the United States, 2000.  
USDA-APHIS-VS, CEAH. Fort Collins, CO  
#N446.0606

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## Introduction

Each January, the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) collects cattle data on inventory, calf crop, and total death losses for State and national estimating programs. Inventory and calf crop estimates (number of head) are published in January, while cattle and calves death losses (number of head) are published annually in April via the Meat Animals: Production, Disposition and Income report. For the January 1992, 1996, and 2001 surveys, USDA's Animal and Plant Health Inspection Service (APHIS) provided funding for a detailed breakdown of total losses for producer-attributed cause of loss occurring the previous year. Death losses by cause for predator losses were estimated and subsequently published by NASS (*Cattle Predator Loss*, May 4, 2001).

This report provides a breakdown of cattle and calves losses in 2000 from all causes. Death losses by size group and region are also provided with special emphasis on nonpredator causes of loss. When possible the 1991 and 1995 death losses are provided for comparison.

### Terms Used In This Report

**Beef operation:** On individual questionnaires, if beef cows were greater than milk cows and milk cows were fewer than five head, the operation was classified as a beef cattle operation.

**Cattle:** All cows, bulls, steers, and heifers 500 lb or greater.

**Calves:** All bulls, steers, and heifers less than 500 lb.

**Dairy operation:** On individual questionnaires, if milk cows were greater than beef cows and beef cows were fewer than five head, the operation was classified as a dairy cattle operation.

**Mixed operation:** On individual questionnaires, if beef cows were greater than five head and milk cows were greater than five head or beef cows equaled milk cows, the operation was classified as a mixed operation.

**Other operation:** Operation that did not meet the criteria to be classified as beef, dairy, or mixed operation.

**N/A:** Not available

**Regions:** The United States was divided into six regions (listed below) for the purposes of providing data on smaller geographical areas within the country. Because cause of loss estimates are not generated for Alaska, the State is not included in the regional demographics. In the 2000 Cattle Predator Loss Report, States reporting fewer than 100 head are combined in an unpublished category. For Nebraska, cattle predator losses were included in this unpublished category, and calf predator losses were published separately. The remaining States in the unpublished category were all in the Northeast region; losses from these States are included in the Northeast regional totals for both cattle and calves.

**Regions:**

**North Central:** Iowa, Minnesota, Nebraska, North Dakota, South Dakota

**Northeast:** Connecticut, Delaware, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin

**Northwest:** Idaho, Montana, Oregon, Washington, Wyoming

**South Central:** Arkansas, Kansas, Missouri, Oklahoma, Texas

**Southeast:** Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee

**Southwest:** Arizona, California, Colorado, Hawaii, Nevada, New Mexico, Utah

**Operation size:** Total number of cows for beef, dairy and mixed operations.

- For beef operations: size groups are 1-49, 50-99, 100-499, and 500 or more.
- For dairy operations: size groups are 1-29, 30-49, 50-99, 100-199, 200-499, and 500 or more.
- For mixed operations: size groups are 1-99, 100-499, and 500 or more.
- For other operations: total number of cattle and calves. Size groups are 1-99 head, 100-499 head, 500-999 and more than 1,000 head

## Section I: Population Estimates—Number of Head

### A. U.S. Demographics

#### 1. Inventory—January 1, 1991-2001

a. Number of cattle and calves, by year:

January 1 Number (1,000 Head)											
Year											
Class	1991	1992	1993	1994	1995	1996*	1997	1998	1999*	2000	2001*
All cattle and calves	96,393	97,556	99,176	100,974	102,785	103,548	101,656	99,744	99,115	98,199	97,298
Cattle 500 lb or more	78,286	79,220	81,059	83,101	84,444	85,164	83,830	82,343	81,825	81,383	81,082
Beef cows	32,520	33,007	33,365	34,603	35,190	35,319	34,458	33,885	33,750	33,575	33,398
Dairy cows	9,965	9,728	9,658	9,507	9,482	9,420	9,318	9,199	9,128	9,183	9,172
Heifers, steers, and bulls	35,801	36,485	38,036	38,991	39,772	40,426	40,054	39,259	38,946	38,625	38,511
Calves	18,107	18,336	18,117	17,873	18,341	18,384	17,826	17,401	17,290	16,816	16,216

\*Numbers may not add up due to rounding

#### 2. Operations—1991-2001

a. Number of operations with cattle and calves, beef cows, and milk cows, by year:

Number Operations											
Year											
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Cattle and calves	1,242,270	1,226,860	1,213,780	1,197,290	1,190,630	1,176,700	1,148,050	1,114,650	1,095,560	1,076,370	1,049,170
Beef cows	910,950	901,870	894,980	897,260	897,660	885,980	872,840	855,460	844,170	831,270	814,520
Milk cows	180,640	170,520	157,150	148,140	139,670	130,980	123,700	117,145	110,855	105,055	97,460

<sup>1</sup> Cattle, NASS, annual January report

b. Percentage of operations with beef cows by size of operation and by year:

<b>Percent Operations</b>									
<b>Year</b>									
<b>Size of Operation (Number of Beef Cows)</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
1 to 49	80.7	80.3	79.8	79.4	79.3	79.3	79.0	78.8	78.5
50 to 99	11.3	11.5	11.8	12.0	12.0	11.9	12.0	12.0	12.1
100 to 499	7.4	7.6	7.8	8.0	8.1	8.2	8.4	8.5	8.7
500 or more	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

c. Percentage of operations with dairy cows by size of operation and by year:

<b>Percent Operations</b>									
<b>Year</b>									
<b>Size of Operation (Number of Dairy Cows)</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
1 to 29	37.3	36.1	34.5	32.9	31.6	30.8	29.7	29.3	29.0
30 to 49	22.2	22.0	22.2	22.3	22.1	21.8	21.7	21.1	20.4
50 to 99	26.8	27.4	28.1	28.7	29.0	29.1	29.6	29.7	29.8
100 to 199	9.3	9.8	10.2	10.7	11.3	11.8	11.9	12.2	12.6
200 or more	4.4	4.7	5.0	5.4	6.0	6.5	7.1	7.7	8.2
200 to 499	N/A	N/A	N/A	N/A	4.1	4.4	4.8	5.1	5.3
500 or more	N/A	N/A	N/A	N/A	1.9	2.1	2.3	2.6	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

d. Percentage of beef cow inventory by size of operation and by year:

Size of Operation (Number of Beef Cows)	Percent Inventory								
	1993	1994	1995	1996	1997	1998	1999	2000	2001
1 to 49	31.7	31.5	31.2	30.8	30.4	30.5	29.9	29.5	29.0
50 to 99	19.8	19.4	19.2	19.6	19.4	18.8	19.1	19.1	19.1
100 to 499	33.9	34.6	35.3	35.4	35.9	36.1	36.6	36.7	37.0
500 or more	14.6	14.5	14.3	14.2	14.3	14.6	14.4	14.7	14.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

e. Percentage of dairy cow inventory by size of operation and by year:

Size of Operation (Number of Dairy Cows)	Percent Inventory								
	1993	1994	1995	1996	1997	1998	1999	2000	2001
1 to 29	5.0	4.6	4.0	4.0	3.5	3.6	3.2	2.9	2.7
30 to 49	14.8	14.0	13.0	12.0	11.5	10.5	10.2	9.1	8.0
50 to 99	29.2	28.7	28.0	27.0	26.0	24.3	23.3	22.0	20.8
100 to 199	19.2	19.3	20.0	20.0	20.0	19.3	18.4	18.1	17.2
200 or more	31.8	33.4	35.0	37.0	39.0	42.3	44.9	47.9	51.3
200 to 499	N/A	N/A	N/A	N/A	14.6	15.5	16.3	16.6	16.3
500 or more	N/A	N/A	N/A	N/A	24.4	26.8	28.6	31.3	35.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**3. Calf crop—1991–2001**

a. Calf crop and calf crop per 100 cows on hand, by year:

	Year										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Calf crop (1,000 Head)</b>	38,583	38,933	39,369	40,105	40,264	39,823	38,961	38,812	38,796	38,631	38,300
Calf crop per 100 cows on hand beginning of year (January 1)	90.8	91.1	91.5	90.9	90.1	89.0	89.0	90.1	90.5	90.3	90.0

**B. Regional Demographics**

**1. Cattle and calves inventory—January 1, 1992, 1996, and 2001**

a. Number of cattle and calves and number of cattle over 500 lb, by region and by year:

Region	January 1 – Number (1,000 Head)					
	Cattle and Calves			Cattle Over 500 lb		
	1992	1996	2001	1992	1996	2001
North Central	18,000	19,110	18,830	15,248	16,555	16,884
Northeast	18,638	18,184	16,111	14,598	14,259	12,903
Northwest	8,300	8,920	8,600	7,320	8,018	7,796
South Central	30,480	33,610	31,500	24,565	27,390	25,650
Southeast	10,760	11,710	9,925	8,152	8,845	7,506
Southwest	11,270	12,004	12,320	9,331	10,089	10,334
Total*	97,548	103,538	97,286	79,214	85,156	81,073

\*Excludes Alaska, so total of regions does not match published United States total.

**2. Beef and dairy cow inventory—January 1, 1992, 1996, and 2001**

a. Number of beef and dairy cows that had calved, by region and by year:

January 1 – Number (1,000 Head)						
Region	Beef Cows			Dairy Cows		
	1992	1996	2001	1992	1996	2001
North Central	5,618.0	6,072.0	6,151.0	12,320.0	1,078.0	949.0
Northeast	3,832.3	3,936.6	3,510.5	4,787.4	4,417.1	4,017.6
Northwest	3,641.0	3,874.0	3,721.0	549.0.0	626.0	714.0
South Central	11,484.0	12,520.0	11,895.0	856.0	820.0	715.0
Southeast	5,262.0	5,760.0	5,077.0	763.0.0	640.0	543.0
Southwest	3,167.0	3,153.0	3,040.0	1,540.0	838.0	2,178.0
Total*	33,004.3	35,315.6	33,394.5	9,727.4	9,419.1	9,170.6

\*Excludes Alaska, so total of regions does not match published United States total.

**3. Calf crop—1991, 1995, and 2000**

a. Calendar year calf crop by region:

Calf Crop (1,000 Head)			
Region	Year		
	1991	1995	2000
North Central	6,570	6,770	6,730
Northeast	7,823	7,5767	6,813
Northwest	3,945	4,280	4,410
South Central	11,070	11,910	11,330
Southeast	5,205	5,475	4,880
Southwest	3,968	4,249	4,464
Total*	38,581	40,261	38,627

\*Excludes Alaska, so total of regions does not match published United States total.

**C. U.S. Annual  
Death Loss****1. Loss from all causes—1991-2000**

a. Number of cattle and calf death losses due to all causes, by year:

<b>Number (1,000 Head)</b>										
<b>Year</b>										
	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
Cattle	1,540	1,677	1,702	1,589	1,645	1,761	1,847	1,668	1,658	1,711
Calves	2,707	2,689	2,921	2,681	2,739	2,811	2,829	2,541	2,455	2,387
Total	4,247	4,366	4,623	4,270	4,384	4,572	4,676	4,209	4,113	4,098

b. Cattle death loss as a percentage of January 1 inventory of cattle over 500 lb on January 1 of the following year, by year:

<b>Percent Inventory</b>									
<b>Year</b>									
<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
1.9	2.1	2.0	1.9	1.9	2.1	2.2	2.0	2.0	2.1

c. Calf death loss as a percentage of calf crop, by year:

<b>Percent Calf Crop</b>									
<b>Year</b>									
<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
7.0	6.9	7.4	6.7	6.8	7.1	7.3	6.5	6.3	6.2

**2. U.S. (excluding Alaska) nonpredator and predator death loss—1991<sup>2</sup>, 1995<sup>2</sup>, and 2000<sup>2</sup>**

a. Number of cattle and calf losses by cause and by year:

Cause	Year					
	1991		1995		2000	
	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent
Nonpredator	4,143.4	97.6	4,263.6	97.3	3,952.0	96.4
Predator	102.0	2.4	118.8	2.7	144.6	3.6
Total	4,245.4	100.0	4,382.4	100.0	4,096.6	100.0

b. Number of cattle losses by cause and by year:

Cause	Year					
	1991		1995		2000	
	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent
Nonpredator	1,523.7	99.0	1,622.7	98.7	1,689.6	98.8
Predator	15.4	1.0	21.4	1.3	20.5	1.2
Total	1,539.1	100.0	1,644.1	100.0	1,710.1	100.0

c. Number of calf losses by cause and by year:

Cause	Year					
	1991		1995		2000	
	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent	Number (1,000 Head)	Percent
Nonpredator	2,619.7	96.8	2,640.9	96.5	2,262.4	94.8
Predator	86.6	3.2	97.4	3.5	124.1	5.2
Total	2,706.3	100.0	2,738.3	100.0	2,386.5	100.0

<sup>2</sup>NASS estimates of total death loss were revised in subsequent publications. However, estimates of predator and nonpredator death loss were not revised. The ratio of predator to nonpredator losses in the initial publication was maintained and applied to the revised total loss estimate to generate the losses due to predators and nonpredators in tables a., b., and c. above. For the 1991 estimates, cattle losses were revised from 1,583,800 to 1,539,100, and calf losses were revised from 2,786,300 to 2,706,300. For the 1995 estimates, cattle losses were revised from 1,635,100 to 1,644,100, and calf losses were revised from 2,745,300 to 2,738,300. For the 2000 estimates, cattle losses were revised from 1,721,100 to 1,710,100, and calf losses were revised from 2,409,500 to 2,386,500.

**3. Regional predator and nonpredator death loss—1991, 1995, and 2000**

a. Number of cattle death losses from all causes by region and by year:

<b>Number Losses (1,000 Head)</b>			
<b>Year</b>			
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>
North Central	264.0	277.0	281.0
Northeast	312.1	311.1	291.1
Northwest	103.0	115.0	124.0
South Central	498.0	522.0	625.0
Southeast	183.0	201.0	174.0
Southwest	179.0	218.0	215.0
Total*	1,539.1	1,644.1	1,710.1

\*Excludes Alaska, so total of regions does not match published United States total.

b. Cattle death loss as a percentage of January 1 inventory of cattle over 500 lb on January 1 of the following year, by year:

<b>Percent</b>			
<b>Year</b>			
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>
North Central	1.7	1.7	1.7
Northeast	2.1	2.2	2.3
Northwest	1.4	1.4	1.6
South Central	2.0	1.9	2.4
Southeast	2.2	2.3	2.3
Southwest	1.9	2.2	2.1
Total	1.9	1.9	2.1

c. Number of calf death losses from all causes by region and by year:

<b>Number Losses (1,000 Head)</b>			
<b>Year</b>			
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>
North Central	493.0	553.0	425.0
Northeast	717.3	673.3	538.5
Northwest	204.0	216.0	225.0
South Central	689.0	675.0	620.0
Southeast	297.0	313.0	266.0
Southwest	306.0	308.0	312.0
Total*	2,706.3	2,738.3	2,386.5

\*Excludes Alaska so total of regions does not match published United States total.

d. Calf death loss as a percentage of calf crop by region and by year:

<b>Percent</b>			
<b>Year</b>			
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>
North Central	7.5	8.2	6.3
Northeast	9.2	8.9	7.9
Northwest	5.2	5.0	5.1
South Central	6.2	5.7	5.5
Southeast	5.7	5.7	5.5
Southwest	7.7	7.2	7.0
Total	7.0	6.8	6.2

**4. Regional predator and nonpredator death loss—1995 and 2000**

a. Number of cattle death losses by cause and percentage of losses by cause—by region and by year:

<b>Number (1,000 Head) and Percent Loss</b>					
<b>Year</b>					
<b>1995</b>					
<b>2000</b>					
<b>Region</b>	<b>Cause</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
North Central	Nonpredator	274.8	99.2	280.2	99.7
	Predator	2.2	0.8	0.8	0.3
	Total	277.0	100.0	281.0	100.0
Northeast	Nonpredator	308.3	99.1	288.2	99.0
	Predator	2.8	0.9	2.9	1.0
	Total	311.1	100.0	291.1	100.0
Northwest	Nonpredator	113.5	98.7	121.9	98.3
	Predator	1.5	1.3	2.1	1.7
	Total	115.0	100.0	124.0	100.0
South Central	Nonpredator	514.2	98.5	619.7	99.2
	Predator	7.8	1.5	5.3	0.8
	Total	522.0	100.0	625.0	100.0
Southeast	Nonpredator	198.0	98.5	170.5	98.0
	Predator	3.0	1.5	3.5	2.0
	Total	201.0	100.0	174.0	100.0
Southwest	Nonpredator	214.1	98.2	208.8	97.1
	Predator	3.9	1.8	6.2	2.9
	Total	218.0	100.0	215.0	100.0

b. Number of calf death losses by cause and percentage of loss by cause—by region and by year:

<b>Number (1,000 Head) and Percent Loss</b>					
<b>Year</b>					
<b>1995</b>					
<b>2000</b>					
<b>Region</b>	<b>Cause</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
North Central	Nonpredator	545.3	98.6	416.9	98.1
	Predator	7.7	1.4	8.1	1.9
	Total	553.0	100.0	425.0	100.0
Northeast	Nonpredator	662.5	98.4	526.1	97.7
	Predator	10.8	1.6	12.4	2.3
	Total	673.3	100.0	538.5	100.0
Northwest	Nonpredator	206.1	95.4	210.1	93.3
	Predator	9.9	4.6	14.9	6.7
	Total	216.0	100.0	225.0	100.0
South Central	Nonpredator	636.5	94.3	581.6	93.8
	Predator	38.5	5.7	38.4	6.2
	Total	675.0	100.0	620.0	100.0
Southeast	Nonpredator	299.5	95.7	242.4	91.1
	Predator	13.5	4.3	23.6	8.9
	Total	313.0	100.0	266.0	100.0
Southwest	Nonpredator	292.3	94.9	284.5	91.2
	Predator	15.7	5.1	27.5	8.8
	Total	308.0	100.0	312.0	100.0

## Section II: Population Estimates—Nonpredator Losses

### A. Operation Classification

#### 1. Operation classification process

This section reports death loss and cause of loss on three operation types with cows: beef, dairy, and mixed operations. NASS collects inventory numbers of beef, milk cows, and heifers on each operation. However, animal breed is not specified in death loss numbers. To estimate death loss, operations were classified based on inventory numbers of beef and dairy cows reported on individual questionnaires as follows:

**Beef operation:** Beef cows are greater than milk cows, and milk cows are fewer than five head.

**Dairy operation:** Milk cows are greater than beef cows and beef cows are fewer than five head.

**Mixed operation:** Operation has at least one cow of any breed, and beef cows are greater than five head and milk cows are greater than five head, or the number of beef cows is equal to the number of milk cows.

**Other:** Operation that did not meet the criteria to be classified as beef, dairy, or mixed operation.

#### 2. Operation Characteristics

Nearly 85 percent of the January 1, 2001, inventory of all cattle and calves were on operations classified as beef, dairy, or mixed. Almost 99 percent of beef cows were on operations classified as beef, while 91.9 percent of milk cows were on operations classified as dairy.

a. Percentage of January 1, 2001, inventory for all cattle and calves, beef cows, and dairy cows, by operation type:

Operation Type	Percent Inventory					
	All Cattle and Calves		Beef Cows		Dairy Cows	
	Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
Beef	67.1	(0.5)	98.7	(0.1)	0.1	(0.0)
Dairy	14.9	(0.3)	0.0	(0.0)	91.9	(0.4)
Mixed	2.2	(0.1)	1.3	(0.1)	8.0	(0.4)
Other	15.8	(0.5)	0.0	(--)	0.0	(--)
Total	100.0		100.0		100.0	

b. Percentage of nonpredator cattle death loss and nonpredator calf death loss, by operation type:

Operation Type	Percent Loss			
	Cattle		Calf	
	Percent	Std. Error	Percent	Std. Error
Beef	49.3	(0.9)	58.4	(1.9)
Dairy	25.7	(0.6)	24.4	(1.1)
Mixed	2.8	(0.2)	3.4	(0.3)
Other	22.2	(1.0)	13.8	(2.6)
Total	100.0		100.0	

**B. Nonpredator  
Cattle Death  
Loss**

**1. Losses—2000**

a. Percentage of cattle inventory lost\*, by region:

Region	Percent Inventory	
	Percent	Standard Error
North Central	1.0	(0.1)
Northeast	2.0	(0.1)
Northwest	1.3	(0.0)
South Central	1.7	(0.1)
Southeast	1.9	(0.1)
Southwest	1.9	(0.1)
All operations	1.6	(0.0)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of cattle 500 lb or greater.

b. For **beef** operations, percentage of cattle inventory lost, by region and by size of operation:

<b>Percent Inventory*</b>										
<b>Size of Operation (Number of Cows)</b>										
<b>Region</b>	<b>1-49</b>		<b>50-99</b>		<b>100-499</b>		<b>500 or More</b>		<b>All Operations</b>	
	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>
North Central	0.9	(0.1)	0.7	(0.1)	0.6	(0.0)	0.9	(0.1)	0.7	(0.0)
Northeast	1.5	(0.1)	1.3	(0.1)	1.0	(0.1)	0.7	(0.1)	1.3	(0.1)
Northwest	1.2	(0.2)	1.1	(0.1)	0.8	(0.0)	0.8	(0.0)	0.9	(0.0)
South Central	2.0	(0.1)	1.3	(0.1)	1.1	(0.1)	0.8	(0.1)	1.4	(0.1)
Southeast	1.9	(0.1)	1.6	(0.1)	1.3	(0.1)	1.1	(0.1)	1.6	(0.1)
Southwest	3.3	(1.3)	1.5	(0.2)	1.3	(0.2)	0.9	(0.1)	1.4	(0.2)
All operations	1.8	(0.1)	1.2	(0.0)	0.9	(0.0)	0.8	(0.0)	1.2	(0.0)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of cattle 500 lb or greater.

c. For *dairy* operations, percentage of cattle inventory lost, by region and by size of operation\*:

Region	Percent Inventory													
	Size of Operation (Number of Cows)													
	1-29		30-49		50-99		100-199		200-499		500 or More		All Operations	
	Std. Pct.	Std. Error	Std. Pct.	Std. Error	Std. Pct.	Std. Error	Std. Pct.	Std. Error	Std. Pct.	Std. Error	Std. Pct.	Std. Error	Std. Pct.	Std. Error
North Central	4.7	(1.4)	2.9	(0.4)	2.3	(0.2)	2.9	(0.3)	2.2	(0.3)	3.0	(0.1)	2.7	(0.1)
Northeast	2.3	(0.3)	3.2	(0.5)	2.6	(0.1)	2.8	(0.1)	2.4	(0.1)	2.3	(0.1)	2.6	(0.1)
Northwest	1.9	(0.7)	1.4	(1.0)	5.1	(0.9)	3.7	(0.4)	3.3	(0.2)	2.3	(0.5)	2.7	(0.4)
South Central	2.2	(0.5)	2.1	(0.6)	3.0	(0.3)	4.0	(0.4)	3.8	(0.4)	4.4	(0.4)	3.8	(0.2)
Southeast	6.3	(3.5)	8.2	(3.4)	4.5	(0.5)	3.9	(0.4)	3.4	(0.2)	5.5	(1.1)	4.4	(0.4)
Southwest	2.7	(1.3)	**		1.6	(0.5)	2.9	(0.5)	3.3	(0.2)	2.6	(0.1)	2.7	(0.1)
All operations	2.6	(0.3)	3.1	(0.4)	2.7	(0.1)	3.0	(0.1)	2.8	(0.1)	2.8	(0.1)	2.8	(0.1)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of cattle 500 lb or greater.

\*\*Too few operations to report.

d. For *mixed* operations, percentage of cattle inventory lost, by region and by size of operation\*:

<b>Percent Inventory</b>								
<b>Size of Operation (Number of Cows)</b>								
	<b>1-99</b>		<b>100-499</b>		<b>500 or More</b>		<b>All Operations</b>	
<b>Region</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>
North Central	2.0	(0.4)	1.5	(0.2)	0.9	(0.2)	1.6	(0.2)
Northeast	2.1	(0.4)	1.9	(0.2)	0.8	(0.2)	1.9	(0.2)
Northwest	1.5	(0.6)	2.0	(0.5)	0.7	(0.1)	1.3	(0.2)
South Central	1.9	(0.4)	2.7	(0.3)	2.4	(0.2)	2.5	(0.2)
Southeast	2.0	(0.4)	2.4	(0.2)	3.1	(0.2)	2.5	(0.2)
Southwest	6.4	(4.0)	2.1	(0.5)	2.0	(0.3)	2.0	(0.2)
All operations	2.0	(0.3)	2.0	(0.1)	1.8	(0.1)	2.0	(0.1)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of cattle 500 lb or greater.

e. For **other** operations, percentage of cattle inventory lost, by region and by size of operation\*:

Region	Percent Inventory									
	Size of Operation (Number of Cattle and Calves)									
	1-99		100-499 <sup>†</sup>		500-999		1,000 or More		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	6.6	(3.3)	1.6	(0.3)	1.2	(0.1)	0.8	(0.1)	1.4	(0.3)
Northeast	2.8	(0.5)	1.8	(0.3)	1.6	(0.2)	1.4	(0.1)	2.1	(0.2)
Northwest	5.0	(1.2)	2.8	(0.7)	0.5	(0.1)	2.3	(0.1)	2.4	(0.1)
South Central	7.7	(1.9)	2.9	(0.5)	1.5	(0.4)	2.4	(0.2)	2.6	(0.2)
Southeast	4.7	(1.1)	3.0	(1.2)	**		1.6	(0.3)	5.6	(2.6)
Southwest	5.0	(1.5)	1.4	(0.3)	0.7	(0.4)	2.1	(0.3)	2.1	(0.2)
All operations	4.9	(1.0)	2.1	(0.2)	1.7	(0.4)	1.9	(0.1)	2.2	(0.1)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of cattle 500 lb or greater.

\*\*Too few to report

**2. Cause of loss—1991, 1995, and 2000**

a. Percentage of cattle death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.8	12.2	10.5	(0.3)
Respiratory problems (pneumonia, shipping fever, etc.)	26.1	26.0	27.1	(0.8)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	4.0	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	7.4	8.3	8.0	(0.4)
Theft (stolen)	1.0	0.5	1.2	(0.6)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	3.2	2.0	1.6	(0.2)
Calving problems	16.2	15.3	12.4	(0.5)
Other diseases (mastitis, etc.)	N/A	N/A	6.1	(0.3)
Other**	33.3	35.7	13.2	(0.5)
Unknown <sup>+</sup>	N/A	N/A	15.9	(0.6)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard errors not available for 1991 and 1995.

\*\*Old age, lameness, etc.

<sup>+</sup>Other causes and unknown causes combined in 1991 and 1995.

b. For **beef** operations, percentage of cattle death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	9.3	10.3	7.5	(0.4)
Respiratory problems (pneumonia, shipping fever, etc.)	12.8	14.2	16.9	(0.8)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	1.7	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	10.0	10.0	11.9	(0.7)
Theft (stolen)	2.3	0.6	2.2	(1.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	6.1	3.2	2.6	(0.3)
Calving problems	18.9	19.0	15.5	(0.7)
Other diseases (mastitis, etc.)	N/A	N/A	3.4	(0.4)
Other**	40.6	42.7	16.8	(0.7)
Unknown***	N/A	N/A	21.5	(0.9)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available for 1991 and 1995.

\*\*Old age, lameness, etc.

\*\*\*Other causes and unknown causes combined in 1991 and 1995.

c. For *dairy* operations, percentage of cattle death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.3	15.2	12.2	(0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	11.4	18.6	14.6	(0.6)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	10.6	(0.5)
Weather-related causes (chilling, drowning, lightning, etc.)	4.4	8.2	4.3	(0.8)
Theft (stolen)	0.3	0.0	0.2	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.9	0.9	0.6	(0.2)
Calving problems	26.3	19.3	13.8	(0.5)
Other diseases (mastitis, etc.)	N/A	N/A	15.4	(0.7)
Other**	41.4	37.8	15.3	(1.0)
Unknown***	N/A	N/A	13.0	(0.5)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available for 1991 and 1995.

\*\*Old age, lameness, etc.

\*\*\*Other causes and unknown causes combined in 1991 and 1995.

d. For *mixed* operations, percentage of cattle death loss by cause and by year:

Nonpredator Cause	Percent Nonpredator Loss			Std. Error
	1991*	1995*	2000	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.8	19.9	11.3	(1.3)
Respiratory problems (pneumonia, shipping fever, etc.)	9.4	22.5	16.8	(1.7)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	10.1	(1.4)
Weather-related causes (chilling, drowning, lightning, etc.)	8.7	8.8	10.0	(1.5)
Theft (stolen)	0.4	<0.01	1.7	(1.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	3.1	<0.01	0.4	(0.2)
Calving problems	28.3	15.0	16.0	(1.4)
Other diseases (mastitis, etc.)	N/A	N/A	7.3	(0.9)
Other**	37.3	33.8	10.5	(1.5)
Unknown***	N/A	N/A	15.9	(1.5)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available for 1991 and 1995.

\*\*Old age, lameness, etc.

\*\*\*Other causes and unknown causes were combined in 1991 and 1995.

e. For **other** operations, percentage of cattle death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	15.6	12.1	14.9	(.09)
Respiratory problems (pneumonia, shipping fever, etc.)	58.4	67.2	64.1	(2.5)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	1.2	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	6.9	3.3	3.5	(0.3)
Theft (stolen)	0.3	<0.01	0.1	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7	<0.01	0.6	(0.3)
Calving problems	1.7	1.5	3.6	(2.0)
Other diseases (mastitis, etc.)	N/A	N/A	1.6	(0.4)
Other**	16.4	15.9	3.5	(0.8)
Unknown***	N/A	N/A	6.9	(0.9)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available for 1991 and 1995.

\*\*Old age, lameness, etc.

\*\*\*Other causes and Unknown causes combined in 1991 and 1995.

**3. Cause of loss by operation size—2000**

a. For **beef** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss							
	Size of Operation (Number of Cows)							
	1-49		50-99		100-499		500 or More	
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	6.3 (0.6)	8.1 (0.8)	7.6 (0.6)	10.6 (1.3)				
Respiratory problems (pneumonia, shipping fever, etc.)	9.7 (0.9)	14.7 (1.1)	23.3 (1.9)	29.9 (2.6)				
Metabolic problems (milk fever, grass tetany, etc.)	2.1 (0.4)	1.6 (0.3)	1.4 (0.3)	1.2 (0.2)				
Weather-related causes (chilling, drowning, lightning, etc.)	10.3 (1.5)	13.0 (1.6)	13.9 (0.9)	10.1 (0.9)				
Theft (stolen)	4.2 (2.9)	1.0 (0.4)	0.7 (0.2)	1.4 (0.6)				
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	2.6 (0.5)	2.6 (0.9)	2.7 (0.4)	2.1 (0.4)				
Calving problems	19.1 (1.4)	15.7 (1.2)	12.8 (0.9)	9.3 (1.2)				
Other diseases (mastitis, etc.)	3.3 (0.7)	4.1 (0.8)	2.7 (0.6)	4.2 (1.5)				
Other*	18.5 (1.4)	18.1 (0.8)	16.0 (0.8)	10.4 (1.1)				
Unknown	23.9 (2.0)	21.1 (1.4)	18.9 (1.2)	20.8 (1.9)				
Total	100.0	100.0	100.0	100.0				

\*Old age, lameness, etc.

b. For *dairy* operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss					
	Size of Operation (Number of Cows)					
	1-29	30-49	50-99	100-199	200-499	500 or More
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	11.5 (2.6)	8.4 (1.7)	13.0 (1.6)	12.2 (1.1)	14.3 (1.2)	11.8 (0.6)
Respiratory problems (pneumonia, shipping fever, etc.)	22.7 (6.4)	10.5 (1.9)	10.6 (1.0)	12.3 (1.0)	16.8 (1.5)	17.8 (1.1)
Metabolic problems (milk fever, grass tetany, etc.)	10.5 (3.1)	11.9 (2.5)	11.8 (1.0)	10.8 (0.9)	12.5 (1.6)	8.4 (0.6)
Weather-related causes (chilling, drowning, lightning, etc.)	3.4 (1.5)	3.7 (1.1)	3.4 (0.6)	6.4 (1.0)	3.8 (0.8)	4.2 (2.2)
Theft (stolen)	0.5 (0.5)	0.2 (0.2)	0.0 (0.0)	0.2 (0.1)	0.5 (0.2)	0.1 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.6 (0.9)	0.8 (0.4)	1.2 (0.6)	0.7 (0.2)	0.2 (0.1)	0.3 (0.1)
Calving problems	12.1 (2.8)	15.5 (2.7)	17.3 (1.2)	15.4 (1.2)	14.1 (1.0)	10.1 (0.5)
Other diseases (mastitis, etc.)	9.5 (2.7)	9.5 (1.7)	13.8 (1.6)	14.9 (1.3)	16.3 (1.4)	18.5 (1.5)
Other*	13.4 (3.2)	27.2 (7.6)	16.9 (1.4)	15.9 (1.6)	10.4 (1.1)	13.2 (1.1)
Unknown	14.8 (3.3)	12.3 (2.4)	12.0 (1.1)	11.2 (1.2)	11.1 (1.1)	15.6 (1.0)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Old age, lameness, etc.

c. For *mixed* operations, percentage of cattle death loss by cause and by size of operation:

<b>Percent Nonpredator Loss</b>						
<b>Size of Operation (Number of Cows)</b>						
<b>1-99                      100-499                      500 or More</b>						
<b>Nonpredator Cause</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	11.2	(3.1)	12.7	(1.9)	8.2	(1.5)
Respiratory problems (pneumonia, shipping fever, etc.)	19.6	(4.3)	14.8	(2.3)	19.0	(2.2)
Metabolic problems (milk fever, grass tetany, etc.)	8.0	(2.2)	12.3	(2.2)	6.9	(1.2)
Weather-related causes (chilling, drowning, lightning, etc.)	9.8	(4.1)	10.8	(2.0)	8.4	(1.5)
Theft (stolen)	0.0	(0.0)	3.0	(2.2)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7	(0.5)	0.4	(0.2)	0.0	(0.0)
Calving problems	17.7	(3.2)	14.9	(2.0)	17.1	(2.0)
Other diseases (mastitis, etc.)	7.5	(2.0)	6.3	(1.2)	9.4	(1.8)
Other*	11.5	(2.9)	11.7	(2.3)	6.0	(0.9)
Unknown	14.0	(3.5)	13.1	(2.0)	25.0	(2.3)
<b>Total</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

\*Old age, lameness, etc.

d. For **other** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss							
	Size of Operation (Number of Cattle and Calves)							
	1-99		100-499		500-999		1,000 or More	
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.1	(3.6)	7.4	(1.3)	8.7	(2.8)	18.3	(1.0)
Respiratory problems (pneumonia, shipping fever, etc.)	39.7	(7.8)	75.5	(3.0)	81.6	(5.5)	66.7	(1.7)
Metabolic problems (milk fever, grass tetany, etc.)	0.9	(0.5)	0.6	(0.2)	0.3	(0.2)	1.5	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	3.3	(0.9)	3.4	(1.0)	2.3	(0.8)	3.8	(0.3)
Theft (stolen)	0.1	(0.1)	0.0	(0.0)	0.4	(0.3)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.5	(0.2)	1.0	(0.5)	0.1	(0.1)	0.6	(0.5)
Calving problems	18.4	(8.3)	0.5	(0.3)	0.1	(0.0)	0.2	(0.0)
Other diseases (mastitis, etc.)	2.3	(0.9)	2.2	(1.1)	3.7	(3.0)	1.0	(0.1)
Other*	12.4	(4.3)	5.0	(1.5)	0.9	(0.3)	0.8	(0.2)
Unknown	10.3	(2.4)	4.4	(1.1)	1.9	(0.7)	7.1	(1.3)
Total	100.0		100.0		100.0		100.0	

\*Old age, lameness, etc.

**4. Cause of loss by region—2000**a. For *beef* operations, percentage of cattle death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	13.8 (1.0)	7.9 (1.0)	11.1 (1.1)	6.3 (0.6)	4.1 (0.5)	6.0 (1.0)
Respiratory problems (pneumonia, shipping fever, etc.)	30.5 (1.7)	14.7 (1.7)	17.9 (1.4)	16.1 (1.4)	6.8 (0.8)	20.6 (4.7)
Metabolic problems (milk fever, grass tetany, etc.)	0.8 (0.2)	3.9 (0.8)	1.9 (0.4)	1.3 (0.3)	1.9 (0.6)	1.1 (0.3)
Weather-related causes (chilling, drowning, lightning, etc.)	14.3 (1.1)	8.0 (1.4)	8.2 (0.9)	12.7 (1.6)	12.9 (1.3)	10.9 (2.3)
Theft (stolen)	0.3 (0.1)	0.9 (0.5)	0.9 (0.3)	1.3 (0.4)	0.2 (0.1)	13.6 (9.9)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.9 (0.5)	1.6 (0.4)	3.9 (0.7)	2.2 (0.5)	4.1 (0.9)	3.8 (0.8)
Calving problems	7.8 (0.8)	17.3 (1.7)	10.8 (1.6)	17.2 (1.3)	20.9 (1.3)	11.9 (2.3)
Other diseases (mastitis, etc.)	2.8 (1.1)	3.2 (0.9)	2.9 (0.5)	3.7 (0.7)	3.9 (0.8)	2.5 (0.7)
Other*	14.4 (1.2)	20.3 (2.1)	19.6 (1.4)	16.1 (1.2)	19.4 (1.3)	12.8 (2.1)
Unknown	14.4 (1.2)	22.2 (3.2)	22.8 (1.7)	23.1 (1.9)	25.8 (1.5)	16.8 (2.6)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Old age, lameness, etc.

b. For *dairy* operations, percentage of cattle death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.2 (1.3)	11.7 (0.9)	13.1 (1.4)	10.4 (1.4)	12.3 (1.8)	13.7 (0.8)
Respiratory problems (pneumonia, shipping fever, etc.)	18.8 (2.2)	11.8 (0.8)	13.1 (1.0)	18.5 (2.9)	8.6 (0.9)	19.7 (1.4)
Metabolic problems (milk fever, grass tetany, etc.)	13.8 (1.4)	12.7 (0.9)	9.4 (1.2)	5.7 (0.8)	6.5 (1.0)	8.6 (1.0)
Weather-related causes (chilling, drowning, lightning, etc.)	2.1 (0.4)	2.6 (0.5)	1.6 (0.3)	19.2 (6.8)	7.2 (1.3)	2.5 (0.6)
Theft (stolen)	0.1 (0.1)	0.2 (0.1)	0.0 (0.0)	0.6 (0.2)	0.0 (0.0)	0.1 (0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1 (0.1)	0.8 (0.3)	1.6 (1.2)	0.3 (0.1)	0.6 (0.2)	0.4 (0.2)
Calving problems	15.0 (1.7)	16.3 (0.9)	9.5 (0.7)	15.1 (1.7)	13.2 (1.5)	9.1 (0.7)
Other diseases (mastitis, etc.)	13.1 (1.4)	14.6 (1.0)	14.9 (1.8)	10.1 (1.4)	21.8 (5.1)	18.4 (1.2)
Other*	14.5 (1.4)	17.7 (2.0)	9.0 (0.9)	8.0 (1.2)	14.1 (2.1)	16.7 (1.6)
Unknown	10.3 (1.4)	11.6 (0.8)	27.8 (2.1)	12.1 (2.0)	15.7 (2.0)	10.8 (1.2)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Old age, lameness, etc.

c. For *mixed* operations, percentage of cattle death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	19.5 (4.8)	12.6 (2.6)	6.3 (2.5)	10.6 (2.1)	3.0 (0.9)	11.3 (3.7)
Respiratory problems (pneumonia, shipping fever, etc.)	23.0 (5.8)	16.7 (3.5)	10.9 (3.3)	11.7 (2.6)	11.1 (2.5)	24.8 (3.9)
Metabolic problems (milk fever, grass tetany, etc.)	11.0 (4.5)	11.8 (3.0)	9.7 (2.9)	12.1 (2.8)	5.7 (1.8)	7.6 (2.3)
Weather-related causes (chilling, drowning, lightning, etc.)	10.6 (3.1)	6.4 (3.0)	3.6 (1.7)	20.4 (4.5)	7.6 (2.0)	8.7 (1.8)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	10.1 (8.4)	0.0 (0.0)	0.0 (0.0)	7.9 (7.3)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7 (0.4)	0.5 (0.4)	0.0 (0.0)	0.5 (0.3)	0.2 (0.2)	0.0 (0.0)
Calving problems	10.9 (3.6)	13.7 (2.5)	3.0 (1.2)	20.3 (3.0)	25.0 (4.1)	16.8 (3.4)
Other diseases (mastitis, etc.)	4.1 (1.5)	8.3 (1.8)	6.0 (2.4)	6.2 (1.7)	7.8 (2.6)	10.0 (2.7)
Other*	9.1 (2.6)	16.4 (4.1)	9.6 (3.0)	8.7 (1.8)	7.0 (2.0)	5.4 (1.6)
Unknown	11.1 (3.5)	13.6 (2.8)	40.8 (7.7)	9.5 (3.5)	32.6 (4.1)	7.5 (2.8)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Old age, lameness, etc.

d. For *other* operations, percentage of cattle death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	14.8 (3.0)	12.1 (2.4)	14.1 (1.2)	17.1 (1.2)	4.3 (2.8)	11.2 (2.2)
Respiratory problems (pneumonia, shipping fever, etc.)	62.2 (9.8)	56.2 (5.8)	44.8 (2.2)	66.0 (2.2)	74.0 (7.4)	76.4 (4.1)
Metabolic problems (milk fever, grass tetany, etc.)	0.7 (0.4)	1.6 (0.5)	0.0 (0.0)	1.7 (0.2)	0.1 (0.1)	0.8 (0.5)
Weather-related causes (chilling, drowning, lightning, etc.)	4.4 (1.0)	2.6 (0.7)	0.8 (0.4)	4.0 (0.4)	1.6 (1.2)	2.3 (0.8)
Theft (stolen)	0.2 (0.1)	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0 (0.0)	1.0 (0.5)	0.7 (0.5)	0.8 (0.5)	0.3 (0.4)	0.3 (0.3)
Calving problems	10.5 (8.6)	2.0 (0.7)	0.4 (0.1)	2.0 (1.0)	4.6 (3.1)	1.2 (0.6)
Other diseases (mastitis, etc.)	1.6 (0.7)	2.2 (1.1)	5.7 (1.3)	1.2 (0.5)	0.3 (0.3)	1.2 (0.6)
Other*	1.4 (0.4)	15.1 (6.2)	7.1 (2.1)	1.3 (0.8)	5.1 (3.4)	4.5 (1.7)
Unknown	4.2 (1.0)	7.2 (1.5)	26.4 (2.9)	5.8 (1.5)	9.7 (5.8)	2.1 (0.6)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Old age, lameness, etc.

**C. Nonpredator Calf Death Loss**

**1. Losses—2000**

a. Percentage of calf crop (born during 2000) lost\*, by region:

Percent Calf Crop*		
Region	Percent	Standard Error
North Central	4.5	(0.6)
Northeast	6.3	(0.4)
Northwest	3.7	(0.1)
South Central	3.7	(0.2)
Southeast	3.7	(0.2)
Southwest	4.9	(0.4)
All operations	4.4	(0.1)

\*Calf deaths in 2000 / 2000 calf crop x 100.

b. For **beef** operations, percentage of calf crop (born during 2000) lost\*, by region and by size of operation:

Percent Calf Crop										
Size of Operation (Number of Cows)										
Region	1-49		50-99		100-499		500 or More Operations		All	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	3.6	(0.3)	3.4	(0.2)	2.9	(0.1)	2.4	(0.1)	3.0	(0.1)
Northeast	5.0	(0.3)	3.5	(0.3)	4.1	(0.4)	1.8	(0.3)	4.5	(0.2)
Northwest	3.7	(0.5)	3.7	(0.3)	3.0	(0.1)	3.0	(0.2)	3.1	(0.1)
South Central	4.0	(0.2)	3.1	(0.2)	2.6	(0.1)	1.9	(0.4)	3.1	(0.1)
Southeast	4.0	(0.2)	3.0	(0.2)	2.4	(0.2)	1.8	(0.1)	3.2	(0.1)
Southwest	6.3	(0.8)	3.8	(0.4)	3.5	(0.4)	2.0	(0.2)	3.4	(0.2)
All Operations	4.3	(0.1)	3.3	(0.1)	2.9	(0.1)	2.3	(0.1)	3.3	(0.1)

\*Calf deaths in 2000 / 2000 calf crop x 100.

c. For *dairy* operations, percentage of calf crop (born during 2000) lost\*, by region and by size of operation:

Percent Calf Crop														
Size of Operation (Number of Cows)														
Region	1-29		30-49		50-99		100-199		200-499		500 or More		All Operations	
	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.
North Central	9.1	(1.4)	7.1	(0.6)	7.2	(0.4)	7.9	(0.6)	4.4	(0.7)	4.0	(0.3)	6.7	(0.3)
Northeast	6.7	(0.7)	7.2	(0.5)	7.1	(0.3)	6.8	(0.3)	6.5	(0.7)	3.3	(0.1)	6.6	(0.2)
Northwest	5.3	(3.7)	4.8	(1.6)	8.9	(0.9)	7.9	(0.6)	5.7	(0.5)	4.6	(0.2)	5.2	(0.3)
South Central	16.9	(5.9)	6.9	(1.0)	8.9	(0.8)	9.4	(0.9)	8.4	(0.9)	12.5	(5.6)	10.7	(2.6)
Southeast	4.6	(1.3)	5.3	(3.7)	7.7	(0.9)	9.9	(0.9)	7.3	(0.6)	4.5	(0.3)	6.9	(0.3)
Southwest	18.6	(3.7)	**		8.2	(1.8)	9.2	(1.6)	7.7	(0.7)	4.3	(0.2)	5.1	(0.2)
All Operations	7.9	(0.7)	7.1	(0.4)	7.3	(0.2)	7.5	(0.3)	6.6	(0.4)	4.9	(0.5)	6.4	(0.2)

\*Calf deaths in 2000 / 2000 calf crop x 100.

\*\*Too few operations to report.

d. For *mixed* operations, percentage of calf crop (born during 2000) lost\*, by region and by size of operation:

Region	Percent Calf Crop						All Operations	
	Size of Operation (Number of Cows)							
	1-99		100-499		500 or More		Pct.	Std. Error
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	7.7	(0.8)	5.8	(0.5)	4.1	(0.4)	6.2	(0.4)
Northeast	7.4	(1.1)	8.4	(1.6)	2.9	(0.5)	7.8	(1.0)
Northwest	6.9	(1.9)	6.6	(1.5)	2.3	(0.3)	4.5	(0.9)
South Central	7.8	(1.0)	6.7	(0.8)	4.0	(0.7)	6.2	(0.5)
Southeast	4.5	(2.0)	6.9	(0.7)	2.3	(0.6)	5.0	(0.6)
Southwest	17.5	(15.5)	4.5	(1.4)	7.9	(1.2)	6.9	(1.0)
All Operations	7.3	(0.7)	6.9	(0.6)	4.3	(0.5)	6.4	(0.4)

\*Calf deaths in 2000 / 2000 calf crop x 100.

**Note: Very few calves were born on “other” operations. Therefore, inventory of calves less than 500 lb was used in place of calf crop.**

e. For *other* operations, percentage of *calf inventory* lost\*, by region and by size of operation:

<b>Percent Inventory</b>										
<b>Size of Operation (Number of Cattle and Calves)</b>										
<b>Region</b>	<b>1-99</b>		<b>100-499</b>		<b>500-999</b>		<b>1,000 or More</b>		<b>All Operations</b>	
	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>	<b>Pct.</b>	<b>Std. Error</b>
North Central	25.6	(6.9)	9.6	(1.7)	21.9	(9.1)	4.0	(2.4)	13.7	(3.0)
Northeast	11.6	(1.7)	7.2	(0.9)	22.9	(9.0)	6.2	(1.0)	12.2	(3.3)
Northwest	13.3	(3.1)	9.4	(4.7)	3.6	(2.0)	20.8	(1.9)	14.7	(2.0)
South Central	15.7	(3.4)	3.9	(0.9)	3.7	(0.7)	3.7	(1.0)	5.6	(0.7)
Southeast	14.7	(3.4)	6.1	(2.3)	**		5.1	(1.2)	16.5	(6.9)
Southwest	12.3	(4.0)	2.4	(0.8)	7.7	(3.5)	14.1	(4.7)	12.2	(3.7)
All Operations	14.9	(1.5)	6.2	(0.6)	15.0	(5.1)	8.6	(2.1)	10.4	(1.3)

\*2000 death loss divided by end-of-year (January 1, 2001) inventory of calves 500 lbs or less. \*\*Too few operations to report.

**2. Cause of loss—1991, 1995, and 2000**

a. Percentage of calf death loss, by cause—1991, 1995, and 2000:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991**</b>	<b>1995**</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	26.0	25.2	19.8	(0.7)
Respiratory problems (pneumonia, shipping fever, etc.)	35.2	29.6	30.0	(1.9)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.8	(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	6.2	10.7	10.6	(0.9)
Theft (stolen)	0.6	0.4	0.4	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8	0.6	0.5	(0.1)
Calving problems	13.2	15.1	16.7	(0.7)
Other diseases (mastitis, etc.)	N/A	N/A	3.2	(0.8)
Other***	18.0	18.4	3.2	(0.3)
Unknown <sup>+</sup>	N/A	N/A	14.8	(0.7)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Operations that reported a calf crop in 2000 but no beef or milk cows on January 1, 2001, are included in this table.

\*\*Standard error not available in 1991 and 1995.

\*\*\*Lameness, etc.

<sup>+</sup>Other and unknown causes combined in 1991 and 1995.

b. For **beef** operations, percentage of calf death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	19.2	17.4	13.8	(0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	25.6	23.5	23.2	(0.7)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.7	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	10.8	14.7	13.5	(0.5)
Theft (stolen)	1.0	0.4	0.6	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.2	0.8	0.7	(0.1)
Calving problems	20.4	20.4	23.5	(0.6)
Other diseases (mastitis, etc.)	N/A	N/A	2.1	(0.3)
Other**	21.8	22.8	3.5	(0.3)
Unknown***	N/A	N/A	18.4	(0.6)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available in 1991 and 1995.

\*\* Lameness, etc.

\*\*\*Other and unknown combined in 1991 and 1995.

c. For *dairy* operations, percentage of calf death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	36.6	40.5	35.4	(1.4)
Respiratory problems (pneumonia, shipping fever, etc.)	33.0	35.3	30.7	(1.3)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	1.1	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	2.5	3.9	6.8	(3.2)
Theft (stolen)	0.2	0.1	0.1	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.5	0.2	0.2	(0.0)
Calving problems	10.6	8.3	9.8	(0.6)
Other diseases (mastitis, etc.)	N/A	N/A	2.5	(0.3)
Other**	16.6	11.7	3.1	(0.9)
Unknown***	N/A	N/A	10.3	(0.6)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available in 1991 and 1995.

\*\*Lameness, etc.

\*\*\*Other and unknown causes combined in 1991 and 1995.

d. For *mixed* operations, percentage of calf death loss by cause and by year:

<b>Percent Nonpredator Loss</b>				
<b>Nonpredator Cause</b>	<b>1991*</b>	<b>1995*</b>	<b>2000</b>	<b>Std. Error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	37.5	41.3	31.0	(2.1)
Respiratory problems (pneumonia, shipping fever, etc.)	34.9	41.5	34.1	(2.0)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	1.5	(0.7)
Weather-related causes (chilling, drowning, lightning, etc.)	4.1	3.1	6.8	(0.9)
Theft (stolen)	0.4	0.0	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.2	0.0	0.0	(0.0)
Calving problems	11.3	5.3	10.7	(1.4)
Other diseases (mastitis, etc.)	N/A	N/A	1.3	(0.5)
Other**	N/A	N/A	1.8	(0.6)
Unknown***	11.6	8.8	12.8	(2.4)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

\*Standard error not available in 1991 and 1995.

\*\*Lameness, etc.

\*\*\*Other and unknown causes combined in 1991 and 1995.

e. For **other** operations, percentage of calf death loss by cause and by year:

Cause	Percent Nonpredator Loss			Std. Error
	1991*	1995*	2000	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	16.0	27.7	15.1	(3.3)
Respiratory problems (pneumonia, shipping fever, etc.)	65.9	61.7	56.5	(9.2)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.3	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	3.1	2.5	5.6	(2.3)
Theft (stolen)	0.5	<0.01	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4	<0.01	0.3	(0.2)
Calving problems	0.7	1.8	1.7	(0.5)
Other diseases (mastitis, etc.)	N/A	N/A	9.9	(5.3)
Other**	13.4	6.3	2.5	(1.2)
Unknown**	N/A	N/A	8.1	(2.9)
Total	100.0	100.0	100.0	

\*Standard error not available for 1991 and 1995.

\*\*Other causes, lameness, etc.

\*\*\*Other causes and unknown causes combined in 1991 and 1995.

**3. Cause of loss by size of operation—2000**

a. For **beef** operations, percentage of calf death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss							
	Size of Operation (Number of Cows)							
	1-49		50-99		100-499		500 or More	
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	11.2	(1.0)	11.2	(0.9)	16.8	(0.8)	18.5	(1.6)
Respiratory problems (pneumonia, shipping fever, etc.)	16.4	(1.1)	25.0	(1.5)	27.8	(1.0)	29.8	(3.6)
Metabolic problems (milk fever, grass tetany, etc.)	0.5	(0.1)	0.7	(0.2)	0.9	(0.2)	0.8	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	13.8	(0.9)	12.9	(1.1)	14.5	(0.9)	10.3	(1.0)
Theft (stolen)	0.4	(0.2)	0.7	(0.3)	0.6	(0.2)	1.1	(0.4)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.0	(0.3)	0.7	(0.3)	0.6	(0.2)	0.4	(0.1)
Calving problems	27.1	(1.2)	25.4	(1.3)	20.9	(1.0)	14.5	(1.2)
Other diseases (mastitis, etc.)	2.4	(0.5)	2.0	(0.4)	1.4	(0.4)	3.0	(0.6)
Other*	4.5	(0.5)	3.8	(0.7)	2.5	(0.4)	2.6	(0.3)
Unknown	22.7	(1.2)	17.6	(1.1)	14.0	(0.8)	19.0	(1.8)
Total	100.0		100.0		100.0		100.0	

\*Lameness, etc.

b. For *dairy* operations, percentage of calf death loss by cause and by size of operation:

Cause	Percent Nonpredator Loss					
	Size of Operation (Number of Cows)					
	1-29	30-49	50-99	100-199	200-499	500 or More
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	34.9 (4.9)	35.3 (2.9)	41.8 (1.7)	41.3 (1.8)	34.7 (2.5)	25.7 (3.6)
Respiratory problems (pneumonia, shipping fever, etc.)	30.4 (5.0)	35.1 (3.2)	28.3 (1.4)	31.1 (1.7)	33.4 (2.7)	29.4 (4.1)
Metabolic problems (milk fever, grass tetany, etc.)	0.0 (0.0)	0.2 (0.1)	1.1 (0.3)	1.2 (0.5)	1.1 (0.3)	1.4 (0.3)
Weather-related causes (chilling, drowning, lightning, etc.)	4.1 (1.4)	2.2 (0.8)	3.8 (0.6)	4.1 (0.6)	4.2 (0.6)	15.3(10.9)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.2 (0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0 (0.0)	0.1 (0.1)	0.1 (0.0)	0.2 (0.1)	0.3 (0.1)	0.2 (0.1)
Calving problems	12.4 (3.4)	12.5 (1.7)	11.1 (1.0)	9.3 (1.1)	7.4 (1.0)	9.3 (1.5)
Other diseases (mastitis, etc.)	1.2 (0.6)	2.1 (0.9)	3.6 (0.8)	2.4 (0.8)	2.8 (0.8)	1.8 (0.3)
Other*	3.0 (1.0)	2.0 (0.5)	3.4 (1.1)	2.3 (0.8)	7.2 (4.8)	1.2 (0.2)
Unknown	14.0 (3.5)	10.5 (2.0)	6.8 (0.8)	8.1 (1.1)	8.8 (1.2)	15.5 (2.4)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Lameness, etc.

c. For *mixed* operations, percentage of calf death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss					
	Size of Operation (Number of Cows)					
	1-99		100-499		500 or More	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	36.5	(4.1)	30.4	(2.9)	24.6	(3.6)
Respiratory problems (pneumonia, shipping fever, etc.)	30.2	(3.4)	35.5	(2.9)	33.8	(2.1)
Metabolic problems (milk fever, grass tetany, etc.)	1.2	(0.8)	1.9	(1.1)	0.5	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	5.9	(1.8)	6.3	(1.3)	10.2	(1.5)
Theft (stolen)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(0.0)	0.0	(0.0)	0.1	(0.0)
Calving problems	12.6	(3.1)	9.0	(1.7)	14.8	(2.5)
Other diseases (mastitis, etc.)	2.4	(1.8)	1.0	(0.4)	0.8	(0.3)
Other*	1.2	(0.8)	2.5	(0.9)	0.1	(0.0)
Unknown	10.0	(2.4)	13.4	(3.9)	15.1	(1.5)
Total	100.0		100.0		100.0	

\*Lameness, etc.

d. For **other** operations, percentage of calf death loss by cause and by size of operation:

Nonpredator Cause	Percent Nonpredator Loss							
	Size of Operation (Number of Cattle and Calves)							
	1-99		100-499		500-999		1,000 or More	
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.1 (5.4)	28.9 (6.5)	15.1 (5.7)	12.7 (3.7)				
Respiratory problems (pneumonia, shipping fever, etc.)	66.9 (14.4)	55.8 (6.7)	44.7 (14.4)	48.9 (9.0)				
Metabolic problems (milk fever, grass tetany, etc.)	0.4 (0.4)	0.2 (0.1)	0.1 (0.1)	0.2 (0.0)				
Weather-related causes (chilling, drowning, lightning, etc.)	4.3 (2.3)	2.7 (1.3)	0.6 (0.4)	14.4 (5.9)				
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)				
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1 (0.1)	1.7 (1.3)	0.0 (0.0)	0.0 (0.0)				
Calving problems	4.0 (1.8)	0.6 (0.3)	0.0 (0.0)	0.1 (0.1)				
Other diseases (mastitis, etc.)	1.0 (0.5)	3.0 (1.7)	38.5 (12.4)	3.5 (3.0)				
Other*	5.4 (3.4)	1.2 (1.0)	0.0 (0.0)	0.1 (0.1)				
Unknown	5.8 (2.6)	5.9 (2.8)	1.0 (0.8)	20.0 (6.7)				
Total	100.0	100.0	100.0	100.0				

\*Lameness, etc.

**4. Cause of loss by region—2000**a. For **beef** operations, percentage of calf death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	20.2 (1.1)	15.6 (1.9)	20.5 (1.3)	8.6 (0.9)	8.5 (0.9)	19.1 (2.1)
Respiratory problems (pneumonia, shipping fever, etc.)	24.8 (1.1)	21.4 (2.1)	21.5 (1.1)	25.8 (1.6)	14.8 (1.3)	27.9 (2.3)
Metabolic problems (milk fever, grass tetany, etc.)	0.2 (0.1)	0.2 (0.1)	0.8 (0.2)	0.9 (0.2)	0.9 (0.2)	1.4 (0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	13.7 (1.0)	11.6 (1.5)	12.5 (1.0)	16.4 (1.1)	10.9 (1.0)	10.8 (2.0)
Theft (stolen)	0.7 (0.2)	0.2 (0.1)	0.1 (0.0)	0.7 (0.3)	0.2 (0.1)	1.8 (0.9)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.0 (0.5)	0.8 (0.4)	0.8 (0.2)	0.3 (0.1)	1.2 (0.4)	1.0 (0.3)
Calving problems	26.7 (1.2)	20.8 (1.7)	22.1 (1.4)	23.8 (1.3)	26.5 (1.4)	16.9 (1.9)
Other diseases (mastitis, etc.)	0.8 (0.2)	2.7 (1.1)	2.2 (0.4)	1.7 (0.4)	3.8 (0.8)	1.9 (0.6)
Other*	2.7 (0.6)	4.3 (0.6)	3.7 (0.5)	3.2 (0.5)	5.3 (0.8)	1.8 (0.4)
Unknown	9.2 (0.8)	22.4 (2.5)	15.8 (1.4)	18.6 (1.1)	27.9 (1.5)	17.4 (1.7)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Lameness, etc.

b. For *dairy* operations, percentage of calf death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	40.7 (2.1)	41.5 (1.5)	29.9 (3.2)	19.0 (6.2)	24.7 (2.5)	31.7 (1.6)
Respiratory problems (pneumonia, shipping fever, etc.)	32.7 (1.9)	31.0 (1.3)	30.1 (4.3)	18.3 (5.8)	29.1 (3.9)	37.5 (1.8)
Metabolic problems (milk fever, grass tetany, etc.)	0.4 (0.2)	1.1 (0.3)	0.9 (0.3)	0.5 (0.2)	0.4 (0.2)	2.0 (0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	3.3 (0.9)	2.2 (0.3)	1.3 (0.4)	39.8 (18.7)	9.8 (1.7)	2.8 (0.4)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)	0.2 (0.1)	0.0 (0.0)	0.3 (0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1 (0.1)	0.1 (0.0)	0.0 (0.0)	0.1 (0.1)	0.2 (0.1)	0.4 (0.2)
Calving problems	14.0 (1.6)	9.2 (0.7)	6.5 (0.9)	11.2 (3.7)	9.8 (1.2)	9.6 (1.2)
Other diseases (mastitis, etc.)	1.5 (0.6)	2.5 (0.5)	1.6 (0.5)	4.7 (2.0)	2.5 (0.6)	2.5 (0.5)
Other *	1.1 (0.3)	5.0 (1.9)	0.2 (0.1)	1.8 (0.8)	1.4 (0.4)	2.1 (0.7)
Unknown	6.2 (1.1)	7.4 (0.7)	29.4 (5.9)	4.4 (1.5)	22.1 (2.2)	11.1 (1.4)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Lameness, etc.

c. For *mixed* operations, percentage of calf death loss by cause and by region:

Percent Nonpredator Loss						
Nonpredator Cause	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error					
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	27.4 (4.1)	36.8 (3.4)	14.9 (5.0)	36.4 (6.0)	29.9 (4.4)	22.8 (3.4)
Respiratory problems (pneumonia, shipping fever, etc.)	36.3 (4.4)	36.8 (3.6)	17.9 (5.6)	33.2 (5.1)	26.3 (3.6)	40.9 (2.5)
Metabolic problems (milk fever, grass tetany, etc.)	3.4 (3.2)	2.1 (0.8)	0.1 (0.1)	0.3 (0.1)	0.3 (0.1)	0.2 (0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	7.3 (2.2)	2.5 (0.8)	3.7 (1.0)	12.7 (3.3)	10.4 (4.0)	11.1 (2.2)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Calving problems	13.2 (3.3)	8.3 (2.5)	6.4 (2.8)	7.7 (2.0)	13.1 (3.6)	19.6 (3.8)
Other diseases (mastitis, etc.)	0.0 (0.0)	2.5 (1.3)	0.7 (0.6)	1.6 (1.1)	0.2 (0.1)	0.2 (0.0)
Other*	1.8 (1.1)	1.7 (1.0)	0.4 (0.3)	3.6 (2.3)	2.5 (1.5)	0.0 (0.0)
Unknown	10.6 (3.8)	9.3 (3.3)	55.9(12.0)	4.5 (1.1)	17.3 (3.3)	5.2 (2.0)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Lameness, etc.

d. For **other** operations, percentage of calf death loss by cause and by region:

Nonpredator Cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	7.7 (4.7)	29.2 (2.8)	36.3 (3.9)	11.2 (5.8)	5.0 (3.2)	10.8 (4.6)
Respiratory problems (pneumonia, shipping fever, etc.)	78.6 (14.5)	33.7 (4.4)	33.8 (3.0)	59.3 (7.1)	73.2 (12.9)	42.7 (10.8)
Metabolic problems (milk fever, grass tetany, etc.)	0.1 (0.0)	0.1 (0.1)	0.1 (0.0)	0.3 (0.2)	2.0 (1.9)	0.0 (0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	0.6 (0.5)	2.7 (1.4)	2.5 (1.2)	9.1 (3.8)	1.1 (0.7)	20.0 (6.6)
Theft (stolen)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0 (0.1)	0.8 (0.8)	0.0 (0.0)	0.1 (0.0)	0.5 (0.4)	0.0 (0.0)
Calving problems	0.9 (0.6)	1.7 (0.8)	1.2 (0.6)	3.0 (1.2)	5.7 (3.5)	0.7 (0.5)
Other diseases (mastitis, etc.)	10.9 (10.9)	22.1 (11.3)	0.7 (0.3)	5.6 (4.2)	1.0 (0.8)	0.1 (0.1)
Other*	0.1 (0.0)	4.7 (3.8)	7.7 (5.6)	4.4 (3.8)	3.3 (3.2)	0.1 (0.1)
Unknown	1.0 (0.7)	5.0 (2.4)	17.7 (3.0)	6.9 (2.6)	8.2 (4.1)	25.6 (7.7)
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Lameness, etc.

## **Section III: Methodology**

### **A. Reliability of Cattle and Calf Death Loss Estimates**

#### **1. Survey procedures**

A random sample of U.S. cattle producers was surveyed to provide data for these estimates. Survey procedures ensured that all producers (except those in Alaska) had an opportunity to participate in the survey, regardless of operation size. Large operations were sampled more heavily than small operations. Data were collected from about 77,000 operators in 1991, 50,000 producers in 1995, and 50,000 producers in 2000 during the first half of January by mail, telephone, and face-to-face interviews. Regardless of when producers responded, they were asked to report death losses for cattle and calves for the 1991, 1995, and 2000 calendar years and the January 1, 1992, 1996, and 2001 cattle and calf inventories by class.

Based on the original data collected during January, NASS's Cattle and Calves Death Loss report was issued in May 1992 and May 1996. NASS's Cattle Predator Loss report was published in May 2001. These reports contained data for death loss by cause, including predator losses and losses from other causes. These estimates were on State and regional levels. NASS's Cattle report was issued in February 1991, February 1995, and February 2001 and contained January 1, inventory estimates.

Data in the reports mentioned above as well as additional summaries from the original data provided estimates for this report. The original data were resummarized to break the losses out by class and size group based on reported inventory. The classes included beef cattle, dairy cattle, mixed, and other cattle operations. These classes and size groups are further defined on p. 1 of this report (Terms used in this report).

#### **2. Estimating procedures**

These estimates of total death loss and death loss by cause were prepared by the Livestock, Dairy and Poultry Branch, NASS, and the National Animal Health Monitoring System, APHIS. Total cattle and calf death losses from all causes were published in NASS's 1991, 1995, and 2000 Meat Animals Production, Disposition, and Income reports, released in April 1992, April 1996, and April 2001. Breakdowns by cause of loss and value of loss were published in the NASS Cattle and Calves Death Loss reports issued in May 1992 and May 1996. Only the NASS Cattle Predator Loss report was issued in May 2001.

#### **3. Reliability**

Since all cattle producers are not included in the sample, survey estimates are subject to sampling variability. Survey results also are subject to nonsampling errors such as omissions, duplications, and mistakes in reporting, recording, and processing the data. The effects of these nonsampling errors cannot be measured directly. They are minimized through rigid quality controls in the data collection process and through a careful review of all reported data for consistency and reasonableness.

**Appendix I: U.S. Populations and Operations\*****Number of Cattle and Calves on January 1, 2001, and Number of Operations in 2000**

<b>Region</b>	<b>State</b>	<b>Number cattle and calves (1,000 head)</b>	<b>Number Operations</b>
North Central	Iowa	3,650	36,000
	Minnesota	2,550	30,000
	Nebraska	6,600	26,000
	North Dakota	1,980	13,700
	South Dakota	4,050	20,000
	Total	18,830	125,700
Northeast	Connecticut	63	1,200
	Delaware	27	480
	Illinois	1,470	25,000
	Indiana	880	22,000
	Kentucky	2,260	48,000
	Maine	97	1,800
	Maryland	235	4,500
	Massachusetts	48	1,300
	Michigan	980	16,000
	New Hampshire	42	950
	New Jersey	48	1,700
	New York	1,380	17,000
	Ohio	1,240	28,000
	Pennsylvania	1,640	28,000
	Rhode Island	6	210
	Vermont	295	3,100
	Virginia	1,650	27,000
	West Virginia	400	13,000
Wisconsin	3,350	42,000	
Total	16,111	281,240	
Northwest	Idaho	1,960	12,000
	Montana	2,550	14,400
	Oregon	1,360	16,900
	Washington	1,180	15,000
	Wyoming	1,550	6,400
	Total	8,600	64,700
South Central	Arkansas	1,800	31,000
	Kansas	6,700	36,000
	Missouri	4,250	68,000
	Oklahoma	5,050	60,000
	Texas	13,700	152,000
	Total	31,500	347,000
Southeast	Alabama	1,360	27,000
	Florida	1,800	20,000
	Georgia	1,270	23,000
	Louisiana	860	15,500
	Mississippi	1,070	24,000
	North Carolina	950	26,000
	South Carolina	445	11,000
	Tennessee	2,170	52,000
	Total	9,925	198,500
Southwest	Arizona	860	3,100
	California	5,150	22,000
	Colorado	3,150	15,100
	Hawaii	150	800
	Nevada	520	1,700
	New Mexico	1,580	8,400
	Utah	910	8,000
	Total	12,320	59,100
Total (49 States)	97,286	1,076,240	
Total U.S. (50 States)	97,297.5	1,076,370	

\*Source: Cattle, NASS, Cattle Final Estimates 1999-2003; NASS Livestock Operations, Final Estimates 1998-2002